

LISTING OF CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in this application.

1-53. (canceled)

54. (currently amended) An implant for use in maintaining a desired distance between first and second cut bone ends of a patient's spinous process or lamina, the implant comprising:

a thin-walled tubular allograft body, the thin wall tubular body being sized and configured to be insertable between the first and second cut bone ends, the thin wall tubular body including a longitudinal axis, a first end, a second end, an outer surface, a bore extending from the first end to the second end, the bore defining an inner surface, and a thin wall extending between the outer surface and the inner surface,

wherein the outer surface includes an outer side region having an outer side length and an inner side region having an inner side length, the outer side length being greater than the inner side length and wherein at least one of the first and second ends are angled at an angle TA with respect to the longitudinal axis of the implant;

wherein the thin wall has a thickness T and the implant further comprises a width W and a depth D, the width W extending between the outer side region and the inner side region of the outer surface of the implant and the depth D extending between opposing outer surfaces as measured along a line drawn perpendicular to the width W; and

wherein the thickness T is between about 1.00 mm to about 1.50 mm.

55. (canceled)
56. (currently amended) The implant of claim ~~54~~55, wherein the wall of the implant has a depth D to thickness T ratio of approximately ~~6:1~~ 4:1 to approximately 8:1.
57. (currently amended) The implant of claim ~~54~~55, wherein the wall of the implant has a width W to thickness T ratio of approximately ~~8:1~~ 6:1 to approximately 12:1.
58. (canceled)
59. (currently amended) The implant of claim ~~54~~58, wherein the wall has a thickness T of about 1.25 mm.
60. (currently amended) The implant of claim ~~54~~55, wherein ~~the thickness T is between about 1.00 mm to about 1.50 mm,~~ the width W is between about 10 mm to about 11.5 mm, and the depth D is between about 6.5 mm to about 7.5 mm.
61. (previously presented) The implant of claim 54, wherein at least one of the first and second ends is at least partially demineralized.
62. (previously presented) The implant of claim 61, wherein both the first and second ends are at least partially demineralized.
63. (previously presented) The implant of claim 62, wherein both the first and second ends are fully demineralized.

64. (previously presented) The implant of claim 63, wherein the first and second ends are demineralized to a demineralization depth DD, the demineralization depth DD be less than about 2 mm.
65. (previously presented) The implant of claim 54, wherein the body has a cross-sectional shape selected from one of an ellipse, an oval, and a circle.
66. (previously presented) The implant of claim 65, wherein the bore has a shape substantially corresponding to the shape of the body.
67. (previously presented) The implant of claim 54, wherein the bore is sized and configured to receive osteogenic material.
68. (previously presented) The implant of claim 54, wherein the allograft body is machined from a long bone.
69. (previously presented) The implant of claim 54, wherein the angle TA is between about 50 degrees to about 70 degrees.
70. (previously presented) The implant of claim 54, wherein the inner side length is between about 6.0 mm to about 10 mm.
71. (previously presented) The implant of claim 54, wherein the first and second ends of the body each incorporate a channel, the channel being sized and configured to receive a surgical instrument.

72. (previously presented) The implant of claim 54, wherein at least one of the first and second ends includes a plurality of surface projections to improve securement of the implant between the respective cut bone ends.

73. (previously presented) The implant of claim 72, wherein the plurality of surface projections are oriented so that they extend vertically when the implant is implanted into a patient.

74. (previously presented) The implant of claim 72, wherein the plurality of surface projections are in the form of teeth.

75. (previously presented) The implant of claim 74, wherein the plurality of teeth have a height H of about 0.5 mm.

76. (previously presented) The implant of claim 72, wherein the plurality of teeth define a tooth angle, the tooth angle being about 45 degrees.

77. (previously presented) The implant of claim 54, wherein the body further includes at least one hole formed through the wall, the hole being sized and configured to permit the implant to be secured to the cut bone.

78. (new) An implant for use in maintaining a desired distance between first and second cut bone ends of a patient's spinous process or lamina, the implant comprising:

a thin-walled tubular allograft body, the thin wall tubular body being sized and configured to be insertable between the first and second cut bone ends, the thin wall tubular body including a longitudinal axis, a first end, a second end, an outer surface, a bore extending from the first end to the second end, the bore defining an inner surface, and a thin wall extending between the outer surface and the inner surface,

wherein the outer surface includes an outer side region having an outer side length and an inner side region having an inner side length, the outer side length being greater than the inner side length and wherein at least one of the first and second ends are angled at an angle TA with respect to the longitudinal axis of the implant;

wherein the thin wall has a thickness T and the implant further comprises a width W and a depth D, the width W extending between the outer side region and the inner side region of the outer surface of the implant and the depth D extending between opposing outer surfaces as measured along a line drawn perpendicular to the width W; and

wherein the wall of the implant has a depth D to thickness T ratio of approximately 4:1 to approximately 8:1.

79. (new) An implant for use in maintaining a desired distance between first and second cut bone ends of a patient's spinous process or lamina, the implant comprising:

a thin-walled tubular allograft body, the thin wall tubular body being sized and configured to be insertable between the first and second cut bone ends, the thin wall tubular body including a longitudinal axis, a first end, a second end, an outer surface, a bore extending from the first end to the second end, the bore defining an inner surface, and a thin wall extending between the outer surface and the inner surface,

wherein the outer surface includes an outer side region having an outer side length and an inner side region having an inner side length, the outer side length being greater than the inner side length and wherein at least one of the first and second ends are angled at an angle TA with respect to the longitudinal axis of the implant;

wherein the thin wall has a thickness T and the implant further comprises a width W and a depth D, the width W extending between the outer side region and the inner side region of the outer surface of the implant and the depth D extending between opposing outer surfaces as measured along a line drawn perpendicular to the width W; and

wherein the wall of the implant has a width W to thickness T ratio of approximately 6:1 to approximately 12:1.